

REMARKS/ARGUMENTS

Claims 1-18, 20-30, 32, 34-54, 56, 58-81, 84-86, 88-94, 96, 98-102, 105, 106, 108-112 and 115-130 remain pending in this application. Claims 19, 31, 33, 55, 57, 82, 83, 87, 95, 97, 103, 104, 107, 113 and 114 have been canceled. Claims 124-130 have been added as new claims.

Claim Rejections – 35 USC § 103

Claims 1-2, 5, 7-12, 14, 18, 20-23, 25-26, 29, 32-36, 38, 42, 44-47, 49-50, 53, 56-60, 62, 66, 68-71, 73-74, 76-77, 79-81, 84-87, 91, 93-94, 96-97, 101-102, 105-107, 111-112, 115-118 and 122 are rejected under 35 USC § 103, as being unpatentable over Christopoulos et al.(US 2001/0047517) in view of Anantharamu et al. (US 2002/0136298).

Claims 3-4, 24, 27-28, 48, 51-52, 72, 75-76, 88-90, 98-100, 108-110 and 119-121 are rejected under 35 USC § 103, as being unpatentable over Christopoulos et al.(US 2001/0047517) in view of Anantharamu et al. (US 2002/0136298), and in further view of Vetro et al. (US 2004/0203851).

Claims 6, 30, 54 and 78 are rejected under 35 USC § 103, as being unpatentable over Christopoulos et al.(US 2001/0047517) in view of Anantharamu et al. (US 2002/0136298) as applied to claims 2, 26, 50 and 74 above, and in view of Wang et al. (US 2002/0152317).

Claims 13, 15-17, 37, 39-41, 61 and 63-65 are rejected under 35 USC § 103, as being unpatentable over Christopoulos et al.(US 2001/0047517) in view of Anantharamu et al. (US 2002/0136298), and in further view of Anand et al. (US 6,920,179).

Claims 119, 43, 67, 92 and 123 are rejected under 35 USC § 103, as being unpatentable over Christopoulos et al.(US 2001/0047517) in view of Anantharamu et al. (US 2002/0136298) as applied to claims 14, 38, 62, 81, 112.

In response to these rejection, Applicant has amended the claims to more clearly clarify differences between the claimed invention and the prior art. Applicant respectfully traverses each of these rejections to the extent such rejections may be considered applicable to the claims as amended. The applied references fail to disclose or suggest the inventions defined by Applicant's amended claims, and provide no teaching that would have suggested a rational reason that would have led a person of ordinary skill in the art to arrive at the claimed invention.

Christopoulos in view of Anantharamu

For example, Christopoulos in view of Anantharamu fails to teach or suggest an apparatus, operable in a wireless communication system, comprising a customer manager to determine a user preference for selective re-encoding of a multimedia stream and an encode manager included within wireless service provider equipment of the wireless communication system that receives the multimedia stream and selects at least one of a plurality of encoding parameter sets in accordance with an encoding scheme, wherein the encoding scheme includes a scheme based on the user preference, wherein the multimedia stream includes a plurality of different types of data, wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for only encoding a second type of the plurality of types of data different from the first type and a third encoding parameter set for encoding multiple types of the plurality of types of data, and wherein the user preference indicates which of the first, second and third encoding parameter sets to use when encoding the multimedia stream, as required by Applicant's currently amended claim 1.

These applied references further fail to teach or suggest the apparatus also comprising an encoder system included within the wireless service provider equipment for selectively re-encoding the received stream using the selected one of the plurality of encoding parameter sets to output an encoded stream with principles set forth by the selected one of the plurality of encoding parameter sets, as recited by Applicant's currently amended claim 1.

As an initial matter, claim 1 has been amended to clarify that the encoder system selectively re-encodes the received stream using the selected one of the plurality of encoding parameter sets. Claim 1 has also been amended to define the multimedia stream such that this stream includes a plurality of different types of data. Claim 1 has further been amended to define the plurality of encoder parameter sets to include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for only encoding a second type of the plurality of types of data different from the first type and a third encoding parameter set for encoding multiple types of the plurality of types of data. Also by way of amendment, claim 1 now requires that the encoder manager select one of the plurality of

encoder parameter sets based on a user preference, wherein the user preference indicates which of the first, second and third encoding parameter sets to use when encoding the multimedia stream.

As a result of these amendments, the techniques set forth by claim 1 may enable selective re-encoding of only one type of data included within a multimedia stream. To illustrate this aspect of the techniques, consider paragraph [0026] of Applicant's specification, which provides one example application of the techniques. In paragraph [0026], the multimedia stream may include three different types of data, audio, video and text data. A user however may not wish to view the video or text but may still want to listen to the audio portion of the stream. The user, according to paragraph [0026] may indicate this through user preferences, which the customer manager may communicate to the encode manager. The encode manager, again as described in paragraph [0026], may then start an audio-only encoding parameter set, which may significantly reduce bandwidth consumption for this multimedia stream for this specific user.

Christopoulos lacks any teaching to suggest these features. Instead, Christopoulos teaches generally to a technique referred to as "universal access."¹ Universal access, according to Christopoulos, involves the ability of user devices to universally process multimedia information.² This universal access "allows an access device with individual limitations to obtain the highest quality content possible, whether as a function of the limitations or as a function of user specification of preference."³

This user preference however is not the same as the user preference required by Applicant's currently amended claim 1. Note that the Christopoulos teaches that an access device obtains the *highest quality content possible* as a function of the user preference. This is different from Applicant's user preference as set forth in currently amended claim 1 in that Applicant's user preference may specify one of the plurality of encoding parameter sets for encoding only a first type of the plurality of types of data of the multimedia stream. The Christopoulos system does not appear to provide any form of selective re-encoding that parallels that required by Applicant's currently amended claim 1.

¹ ¶ [0004].

² ¶ [0004].

³ ¶ [0004].

Christopoulos however does mention in paragraph [0015] that the Christopoulos techniques may be applied to a compound document having, for example, text and images. This portion of Christopoulos explains the application of this aspect of the Christopoulos techniques, stating “[i]f such a compound document is compressed as an image and is to be accessed by a client lacking the capability to decode images ... then there will be no way to deliver at least the text portion of the compound image to the client. Christopoulos continues in paragraph [0015], to describe a solution to this issue, stating “[i]f however, client capabilities were known intelligent decisions could be made regarding the compound document and the text could at least be delivered to the client.”

Yet, this aspect of the Christopoulos techniques only appears to apply to compound documents with respect to device capabilities. Christopoulos does not in any way teach or suggest that user preference may be used to tailor re-encoding of the multimedia content in the manner required by Applicant’s currently amended claim 1. Moreover, Christopoulos, as described above, teaches away from such a form of re-encoding as Christopoulos states that the access device obtains the *highest quality content possible* as a function of the user preference rather than stating that the user preference enables an access device to obtain lower quality content even though the access device could obtain higher quality content.

In this respect, Christopoulos lacks any teaching to suggest a user preference that indicates which of the first, second and third encoding parameters sets to use when encoding the multimedia stream, as required by Applicant’s currently amended claim 1. As Christopoulos lacks any teaching regarding the user preference, it follows that Christopoulos therefore lacks any teaching to an encode manager included within wireless service provider equipment of the wireless communication system that receives the multimedia stream and selects at least one of a plurality of encoding parameter sets in accordance with an encoding scheme, wherein the encoding scheme includes a scheme based on the user preference, wherein the multimedia stream includes a plurality of different types of data, and wherein the plurality of encoding parameter sets include a first encoding parameter set for encoding only a first type of the plurality of types of data, a second encoding parameter set for only encoding a second type of the plurality of types of data different from the first type and a third encoding parameter set for encoding multiple types of the plurality of types of data, as required by Applicant’s currently amended claim 1.

Moreover, as user preference indicates which of the first, second and third encoding parameters sets to use when encoding the multimedia stream, it follows that Christopoulos lacks any teaching to suggest an encoder system included within the wireless service provider equipment for selectively re-encoding the received stream using the selected one of the plurality of encoding parameter sets to output an encoded stream with principles set forth by the selected one of the plurality of encoding parameter sets, as recited by Applicant's currently amended claim 1.

The Anantharamu reference does not cure the deficiencies noted above with respect to Christopoulos. Anantharamu is generally directed to an adaptive transcoder which streams predictive coded video data over variable bandwidth networks and to devices having varying processing capabilities.⁴ More specifically, Anantharamu describes a system and a method to adaptively transcode predictive coded video data and associated audio data such that the data may be transmitted at a bit-rate that matches an available bandwidth of a network and a client.⁵ Anantharamu however makes no mentions of transcoding based on user preference, much less a user preference that indicates which of the first, second and third encoding parameters sets to use when encoding the multimedia stream, as required by Applicant's currently amended claim 1.

Much like Christopoulos discussed above, from this lack of any teaching relating to the user preference required by Applicant's currently amended claim 1, it follows that Anantharamu lacks any teaching to suggest the remaining limitations required by Applicant's currently amended claim 1, as these remaining limitations are each dependent on the user preference. As Anantharamu fails to cure the deficiencies of Christopoulos noted above, the applied references therefore fail to disclose or suggest the inventions defined by Applicant's claim 1, and provide no teaching that would have suggested a rational reason that would have led a person of ordinary skill in the art to arrive at the invention set forth in claim 1.

The arguments made above apply to independent claims 25, 49, 73, 80, 81, 93, 102 and 112 to the extent these claims have been amended to recite limitations similar to those of claim 1. The arguments also apply to claims 2, 5, 7-12, 14, 18, 20-23, 26, 29, 32-36, 38, 42, 44-47, 50, 53, 56, 58-60, 62, 66, 68-71, 74, 76, 77, 79, 84-86, 91, 94, 96, 101, 105, 106, 111, 115-118 and

⁴ Abstract.

⁵ ¶ [0006].

122 by virtue of these claims dependent from respective independent claims 1, 25, 49, 81, 93, 102 and 112.

For the remainder of the rejections, Applicant notes initially that each of the remaining rejections combine the teachings of Christopoulos/Anantharamu (discussed above) with the teachings of a different additional reference. As described above, neither Christopoulos nor Anantharamu teaches the user preference recited for example by Applicant's currently amended claim 1. As a result of this deficiency, neither Christopoulos nor Anantharamu teach or suggest the remaining limitations recited, again as one example, by Applicant's currently amended claim 1, in that these remaining limitations (such as the customer manager, encoder manager, and encoder system) all rely on or utilize the particular user preference in various ways. None of the additional references provide any teaching to suggest the user preference required by Applicant's currently amended claim 1 and therefore none of these additional references overcome the deficiencies noted above with respect to claim 1. Each of these additional references cited by the Examiner is addressed below.

Vetro

Vetro describes a system by which to provide environment aware services (EAS) to mobile terminal devices.⁶ The Vetro system delivers this environment awareness via an environment description, which may include, for example, device capabilities, network conditions, delivery capabilities, user preferences, mobility characteristics, etc.⁷ Vetro suggests that a service manager or an application service provider may utilize the environment description to adapt and delivery personalized and general services.⁸ The Vetro system may periodically update the environment descriptions to accommodate, for example, new environments or new machines capable of performing a specific type of content adaption.⁹ The Vetro system may include a content adaption engine that reformats, based on one or more environment

⁶ ¶ [0020].

⁷ *Id.*

⁸ *Id.*

⁹ ¶ [0065].

descriptions, content received from an application service provider in a first format into a second format supported by a mobile device to which the content is destined.¹⁰

While Vetro discusses user preferences, Vetro explicitly defines user preferences as including “filtering and search preferences, browsing preferences, display preferences and QoS preferences, as well as demographic information, such as gender and age.”¹¹ These Vetro user preferences are apparently directed to preferences with respect to browsing the Internet or receiving content and do not represent user preferences that indicate which of the first, second and third encoding parameters sets to use when encoding the multimedia stream, as required by Applicant’s currently amended claim 1. Consequently, Vetro fails to cure the deficiencies of Christopoulos/Anantharamu noted above with respect to claim 1.

As claims 3–4, 24, 27–28, 48, 51–52, 72, 75–76, 88–90, 98–100, 108–110 and 119–121 depend from respective claims 1, 25, 49, 73, 80, 81, 93, 102 and 112, the above arguments made with respect to the independent claims also apply to these dependent claims. Christopoulos in view of Anantharamu and Vetro therefore fails to disclose each and every limitation set forth in claims 3–4, 24, 27–28, 48, 51–52, 72, 75–76, 88–90, 98–100, 108–110 and 119–121.

Wang

Wang describes a system that is capable of simultaneously providing different encodings of the same bitstream, where each encoding may encode the same bitstream at a different rate to accommodate the bandwidth requirements of different clients.¹² Wang suggests that different bandwidth requirements may occur as a result of different forms of connections. For example, Wang explains that the bandwidth at the client ends can be very different, as one client may connect via a phone modem at 56 Kb/s while another client may connect via a Cable modem at a few Mb/s.¹³ Wang however is silent with respect to the user preference required by Applicant’s currently amended claim 1 and therefore fails to cure the deficiencies of Christopoulos/Anantharamu noted above with respect to claim 1.

¹⁰ ¶’s [0076] and [0079]–[0082].

¹¹ ¶ [0040].

¹² ¶’s [0010] and [0005].

¹³ ¶’s [00

As claims 6, 30, 54 and 78 depend from respective claims 1, 25, 49 and 73, Applicant submits that the above arguments made with respect to the independent claims also apply to these dependent claims. Christopoulos in view of Anantharamu and Wang therefore fails to disclose each and every limitation set forth in claims 6, 30, 54 and 78.

Anand

Anand describes a system for progressively encoding a bit stream for transmission over a heterogeneous network.¹⁴ According to Anand, a progressively encoded bit stream may be “configured so as to be decodable at any one of a series of increasing bit rates up to a maximum bit rate, depending on which of a number of corresponding portions of the progressive coded video bit stream are received by the decoder.”¹⁵ Anand suggests that the progressive transmission video techniques are highly scalable in bit rate, and thereby allow adaptability to different bandwidth conditions over a heterogeneous network.¹⁶ Anand, like Wang, is however silent with respect to the user preference required by Applicant’s currently amended claim 1.

As claims 13, 15–17, 37, 39–41, 61 and 63–65 depend from respective claims 1, 25 and 49, the above arguments made with respect to the independent claims also apply to these dependent claims. Christopoulos in view of Anantharamu and Anand therefore fails to disclose each and every limitation set forth in claims 13, 15–17, 37, 39–41, 61 and 63–65.

Official Notice

Applicant submits that the arguments above with respect to independent claims 1, 25, 49, 81 and 112 also apply to dependent claims 19, 43, 67, 92 and 123, as these claims depend from respective independent claims 1, 25, 49, 81 and 112. Because no other reference was combined with Christopoulos and Anantharamu and these applied references provide no teaching to suggest the user preference recited by Applicant’s currently amended independent claims, the applied references lacks any teaching to suggest all of the limitation set forth in claims 19, 43, 67, 92 and 123.

¹⁴ Abstract.

¹⁵ Column 3, lines 13–20.

¹⁶ Column 4, lines 60–65.

For at least these reasons, the Examiner can no longer maintain the rejections of Applicant's claims 1-18, 20-30, 32, 34-54, 56, 58-81, 84-86, 88-94, 96, 98-102, 105, 106, 108-112 and 115-123 under 35 U.S.C. 103(a) as being unpatentable over the various applied references. Withdrawal of this rejection is requested.

New Claims

Applicant has added claims 124-130 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicant's new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions. As these new claims 124-130 were originally presented, then cancelled and now re-presented, no new matter has been added by the new claims.

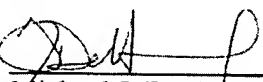
CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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By: 
Michael J. DeHaemer, Reg. No. 39,164
858.845.5448

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 658-5787
Facsimile: (858) 658-2502